

IN THE CLAIMS:

Please amend claims 1, 10, 13-15, 20 & 21 as follows:

1. (Presently Amended) A sanitary fill valve assembly comprising:
 - (a) a housing having an inlet passage for receiving a viscous flowable material from a viscous flowable material source, an annular chamber for receiving the viscous flowable material from said inlet passage, and an outlet passage from which the viscous flowable material is dispensed;
 - (b) an ON/OFF positive controlled product dispenser for dispensing the viscous flowable material from said chamber; and
 - (c) a product flow regulator extending substantially perpendicular relative to said product dispenser, said inlet passage and said outlet passage for adjustably regulating the rate of flow of the viscous flowable material into said chamber, said ~~regulating mechanism~~ product flow regulator being disposed in a direct flow path between said inlet passage and said annular chamber of said housing ~~to at least one of reduce and increase the flow area at said flow path.~~
2. (Original) The assembly of claim 1, wherein said product dispenser comprises a piston cylinder.
3. (Original) The assembly of claim 2, wherein said piston cylinder includes a main piston body and a piston head disposed at a distal end thereof for dispensing the viscous flowable product from said chamber.

4. (Original) The assembly of claim 3, wherein an annular surface of said housing has a tapered wall adjacent said outlet passage forming a seat for said main piston body.

5. (Original) The assembly of claim 4, further comprising a seal mechanism for positively sealing said piston cylinder in said chamber.

6. (Original) The assembly of claim 5, wherein said seal mechanism comprises a first seal member, a second seal member and a third seal member.

7. (Original) The assembly of claim 6, wherein said first seal member is disposed on said piston head for cleaning-in-place said outlet passage to prevent dripping of the viscous flowable product during dispensation, said second sealing member being disposed intermediate said main piston body and said piston head for positively shutting off flow of the viscous liquid product during dispensation, and said third seal member being disposed adjacent said main piston body for preventing fluid leakage at a basal end thereof.

8. (Original) The assembly of claim 7, further comprising a drive mechanism for actuating said piston cylinder.

9. (Original) The assembly of claim 8, wherein said drive mechanism comprises a pneumatic cylinder.

10. (Presently Amended) The assembly of claim 1, wherein said product flow regulator comprises a regulator body, ~~and~~ an adjustment mechanism for selectively displacing said regulator body within said housing between a downward position decreasing the flow area into said chamber and an upward position increasing the flow area into said chamber, first stop means and second stop means for limiting the displacement of said product flow regulator.

11. (Original) The assembly of claim 8, wherein said adjustment mechanism comprises a threaded screw and an adjustment nut, said threaded screw having a lower end connected to an upper portion of said regulator body and an upper end connected to said adjustment nut, wherein rotation of said adjustment nut and said threaded screw causes to displace said elongated regulator body.

12. (Original) The assembly of claim 8, wherein said adjustment mechanism comprises an electric actuator.

13. (Presently Amended) A sanitary fill valve comprising a housing having a flow path adapted to receive and dispense a viscous flowable material; a product dispensing piston disposed for reciprocating movement within said housing ~~for dispensing to dispense~~ the viscous flowable material therefrom; and ~~a~~ an adjustably moveable product flow regulator disposed in said flow path for adjustably regulating the flow rate of the viscous flowable material by at least one of reducing and increasing the flow area into said chamber to accommodate viscous flowable materials having different physical properties, said product flow regulator having a pair of stop means for limiting the movement of said product flow regulator.

14. (Presently Amended) A sanitary fill valve comprising: (a) a housing having an inlet passage, an outlet passage and an annular chamber ~~aligned in series to create a flow path~~ for receiving and dispensing a viscous flowable material; (b) a product dispenser disposed within said chamber and adapted to reciprocate between a first position opening said chamber and a second position closing said chamber to dispense the viscous flowable material therefrom; (c) a pneumatic actuator for displacing said product dispenser between said first and second positions; and (d) a product flow regulator having a regulator body disposed intermediate of said inlet passage and said chamber, wherein a distal end portion of said regulator body combines with said inlet passage to form a flow channel at the mouth of said inlet passage through which the viscous flowable material flows into said annular chamber, the width of said flow channel being automatically adjustable to regulate ~~for adjustably regulating~~ the flow rate of the viscous flowable material before entry into the annular chamber ~~by at least one of reducing and increasing the flow area into the chamber to accommodate viscous flowable materials having different physical properties.~~

15. (Presently Amended) A sanitary fill valve for accommodating viscous flowable materials having different physical properties, said sanitary fill valve comprising:

(a) a valve housing having an inlet passage for receiving a viscous flowable material from a viscous flowable material source, an annular chamber in communication with said inlet passage, and an outlet passage in communication with said chamber for dispensing the viscous flowable material;

(b) a product dispenser disposed within said annular chamber for drawing the viscous flowable material into said chamber and dispensing the viscous flowable material from said chamber;

(c) a sealing mechanism for positively sealing said product dispenser within said chamber, wherein said seal mechanism is also adapted to facilitate cleaning-in-place of said outlet passage during dispensation of the viscous flowable material; and

(d) a product flow regulator in communication with said inlet passage and said chamber for adjustably regulating the rate of flow of the viscous flowable material into said chamber by reducing and/or increasing a flow area into said chamber, wherein said product flow regulator is positioned in said valve housing such that it reciprocates in directions substantially perpendicular to said product dispenser, said inlet passage and said outlet passage ~~to accommodate viscous flowable materials having different physical properties.~~

16. (Original) The valve of claim 15, wherein said product dispenser comprises a piston cylinder having a main piston body and a piston head disposed at a distal end thereof for dispensing the viscous flowable material from said chamber.

17. (Original) The valve of claim 16, wherein said piston head is provided with a pair of channels on an outer circumferential surface thereof for receiving a pair of seal members.

18. (Original) The valve of claim 17, wherein each of said seal members comprises an O-ring.

19. (Original) The valve of claim 18, wherein said product flow regulator comprises a cylindrical regulator body disposed adjacent said inlet passage and an regulator actuator for selectively displacing

said regulator body between a first position decreasing the flow rate of the viscous flowable material into said chamber and an second position increasing the flow rate of the viscous flowable material into said chamber.

20. (Presently Amended) A process for hygienically filling a container with a viscous flowable material comprising the steps of:

(a) providing a housing having an inlet, an outlet and an annular chamber for receiving and dispensing the viscous flowable material, then;

(b) pumping the viscous flowable material ~~a liquid product~~ through an inlet into a said chamber of a housing, then;

(c) providing a flow regulator between said chamber and said inlet and substantially perpendicular in relation to said inlet and said outlet, then;

(d) adjustably regulating the flow rate of the viscous flowable material at said inlet using said flow regulator ~~a liquid product before entry into said chamber by at least one of reducing and increasing the flow area into said chamber, said regulation being adjusted~~ based upon the physical properties of the viscous flowable material; and then

(e) dispensing the liquid product by pneumatically operating a drive device for reciprocating ~~product dispenser to reciprocate said product dispenser between a first position opening said chamber and a second to a position closing said chamber to permit dispensing of the liquid product therefrom.~~

21. (Presently Amended) The process of claim 20, further comprising the step of providing a seal mechanism for automatically cleaning-in place said chamber during said dispensing step.

RESPONSE

The Applicant would like to thank Examiner Khaira (and the attending primary examiner) for the courtesies extended during the August 11, 2005 interview. In this interview, an agreement was reached (as indicated on the *Interview Summary*) as to the spatial position of the regulator in relation to the respective inlet and outlet passages and the provision of first and second stop means. Particularly, Examiner Khaira and the attending primary examiner expressed that such features are not found in the prior art.

Claims 1-21 are presently pending, with claims 1, 10, 13, 14, 15, 20 & 21 being amended to more clearly define the invention, as will be further explained in greater detail hereinbelow.

It should be noted that the specification was amended to incorporate certain features relating to the flow regulator. Since said features were already illustrated in the drawings as originally filed, it is contended no issue of new matter is presented by said amendment. This was confirmed by the Examiner during the August 11, 2005 interview.

A set of replacement drawings also accompany this Amendment/Response, said replacements are being provided to include specific reference numerals to the aforesaid features. Applicant respectfully request entry of said replacement drawings.